

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled).

Claim 2 (currently amended). The method of access node ~~according to claim [[1]] 21~~, wherein said at least one second optical conductor is one of a plurality of optical conductors connecting the access node to the optical network.

Claim 3 (currently amended). The method of access node ~~according to claim [[1]] 21~~, wherein said light sources are lasers.

Claim 4 (currently amended). The method of access node ~~according to claim [[1]] 21~~, wherein said light sources are laser arrays.

Claim 5 (currently amended). The method of access node ~~according to claim [[1]] 21~~, which comprises optical coupling elements disposed between said light sources and said first optical conductors.

Claim 6 (currently amended). The method of access node ~~according to~~ claim 5, wherein said optical coupling elements are selected from the group consisting of first circulators and directional couplers.

Claim 7 (currently amended). The method of access node ~~according to~~ claim ~~[[1]]~~ 21, which comprises a first switching matrix connected between said light sources and said first optical conductors.

Claim 8 (currently amended). The method of access node ~~according to~~ claim 7, wherein said first switching matrix is capable of multicasting.

Claim 9 (currently amended). The method of access node ~~according to~~ claim ~~[[1]]~~ 21, which comprises a signal processing block with optical wavelength division multiplexers connected between said first optical conductors and said second optical conductors.

Claim 10 (currently amended). The method of access node ~~according to~~ claim 9, which comprises a signal block switching matrix disposed between said first optical conductors and said signal processing block.

Claim 11 (currently amended). The method of access node ~~according to~~ claim 9, wherein said signal processing block includes at least one additional signal processing unit.

Claim 12 (currently amended). The method of access node ~~according to~~ claim 11, wherein said at least one additional signal processing unit is selected from the group consisting of a switching matrix, an optical switch, an optical amplifier, and an optical monitoring device.

Claim 13 (currently amended). The method of access node ~~according to~~ claim 10, which comprises a further switching matrix combined with said signal block switching matrix.

Claims 14 - 19 (canceled).

Claim 20 (currently amended). A method of feeding a plurality of signals from a plurality of users into an optical network, which comprises the following steps:

providing an access node for optical networks with variable access wavelengths, including:

a plurality of first optical conductors each disposed to connect a respective user device;

at least one second optical conductor for connecting the access node to an optical network; and

a plurality of light sources emitting unmodulated light signals at wavelengths of the optical network and connected to the first optical conductors for feeding the unmodulated light signals to the user devices such that the unmodulated light signals of the light sources can be modulated in the user devices;

connecting a number of user devices each with a ~~circulator~~ and a modulator to the access node;

generating a number of light signals of different wavelength in the access node;

extracting the light signals in unmodulated form from the access node and transmitting the unmodulated light signals to the user devices;

modulating the light signals with user signals in the user devices to form modulated light signals;

injecting the modulated light signals into the access node;

generating wavelength division multiplex signals in the access node; and

feeding the wavelength division multiplex signals into the optical network.

Claim 21 (currently amended). A method of feeding a plurality of signals from a plurality of users into an optical network, which comprises the following steps:

generating a number of light signals of different wavelength in an access node for optical networks with variable access wavelengths, including:

- a plurality of first optical conductors each disposed to connect a respective user device;

- at least one second optical conductor for connecting the access node to an optical network; and

- a plurality of light sources emitting unmodulated light signals at wavelengths of the optical network and connected to the first optical conductors for feeding the unmodulated light signals to the user devices such that the unmodulated light signals of the light sources can be modulated in the user devices;

extracting the light signals in unmodulated form from the access node and transmitting the unmodulated light signals to a number of user devices;

modulating the light signals with user signals in the user devices to form modulated light signals;

injecting the modulated light signals into the access node;

generating wavelength division multiplex signals in the access node; and

feeding the wavelength division multiplex signals into the optical network.

Claim 22 (currently amended). A method of feeding a plurality of signals from a plurality of users into an optical network, which comprises the following steps:

generating a number of light signals of different wavelength in an access node for optical networks with variable access wavelengths, including:

a plurality of first optical conductors each disposed to connect a respective user device;

at least one second optical conductor for connecting the access node to an optical network; and

a plurality of light sources emitting unmodulated light signals at wavelengths of the optical network and connected to the first optical conductors for feeding the unmodulated light signals to the user devices such that the unmodulated light signals of the light sources can be modulated in the user devices;

extracting the light signals in unmodulated form from the access node and transmitting the unmodulated light signals to a number of user devices, the user devices including a circulator and a modulator to be connected to an information source;

modulating the unmodulated light signals with user signals in the user devices to form modulated light signals;

injecting the modulated light signals into the access node;

generating wavelength division multiplex signals in the access node; and

feeding the wavelength division multiplex signals into the optical network ~~a user device configured for connecting to the access node, the user device comprising a circulator and a modulator to be connected to an information source.~~

Claim 23 (currently amended). A method of feeding a plurality of signals from a plurality of users into an optical network, which comprises the following steps:

generating a number of light signals of different wavelength in an access node for optical networks with variable access wavelengths, including:

a plurality of first optical conductors each disposed to connect a respective user device;

at least one second optical conductor for connecting the access node to an optical network; and

a plurality of light sources emitting unmodulated light signals at wavelengths of the optical network and connected to the first optical conductors for feeding the unmodulated light signals to the user devices such that the unmodulated light signals of the light sources can be modulated in the user devices;

extracting the light signals in unmodulated form from the access node and transmitting the unmodulated light signals to a number of user devices, the user devices including a modulator operating in reflection mode and configured to be connected to an information source;



modulating the unmodulated light signals with user signals in the user devices to form modulated light signals;

injecting the modulated light signals into the access node;

generating wavelength division multiplex signals in the access node; and

feeding the wavelength division multiplex signals into the optical network~~user devices configured for connecting to the access node, the user devices comprising a modulator operating in reflection mode and configured to be connected to an information source.~~

Claim 24 (canceled).

Claim 25 (new). An optical network with variable access wavelengths, comprising:

an access node;

a number of user devices, each of said number of user devices for modulating light signals with user signals to form modulated light signals;

a plurality of first optical conductors each disposed to connect a respective one of said number of user devices to said access node;

said access node including a plurality of light sources for generating a number of light signals of different wavelengths, said plurality of light sources emitting unmodulated light signals at wavelengths of the optical network and feeding the unmodulated light signals to said number of user devices, via said first optical conductors, such that the unmodulated light signals of said light sources can be modulated in the user devices;

said plurality of first optical conductors for extracting the light signals in unmodulated form from the access node and transmitting the unmodulated light signals to said number of user devices, said plurality of first optical conductors additionally for injecting modulated light signals back into said access node from the user devices;

said access node further including a signal processor for generating wavelength division multiplex signals in the access node; and

at least one second optical conductor connecting said access node to the optical network for feeding said wavelength division multiplex signals from said access node into the optical network.

Claim 26 (new). The optical network of claim 25, wherein, each of said number of user devices includes a circulator and a modulator to be connected to an information source.

Claim 27 (new). The optical network of claim 25, wherein, each of said number of user devices includes a modulator operating in reflection mode and configured to be connected to an information source.